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August 24, 2017

U.S. District Judge William Alsup

Re: *Waymo LLC v. Uber Technologies, Inc., et al.*, N.D. Cal., Case 3:17-cv-00939-WHA  
**Waymo's Opposition to Uber's and Ottomotto's Summary Judgment Précis**

Dear Judge Alsup:

Pursuant to the Court's order of August 22, 2017 (Dkt. 1308), Plaintiff Waymo LLC respectfully files this Opposition to Uber's and Ottomotto's (collectively "Uber's") summary judgment précis letter (Dkt. 1300).

Sincerely,

/s/ Charles K. Verhoeven

Charles K. Verhoeven

**quinn emanuel urquhart & sullivan, llp**

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**Uber's Request for Summary Judgment on the '936 Patent Is Meritless.** Uber's request for summary judgment of non-infringement on the '936 Patent is based on Uber's position under the doctrine of equivalents that the claimed "diode" in the '936 claims is not equivalent to the "resistor" in the accused Fuji system. But Waymo has presented compelling evidence that the resistor in Fuji is equivalent to the diode in the '936 Patent. In any event, this is a classic disputed issue of material fact, making Uber's anticipated summary judgment motion futile.

First, as to the claimed "diode": Waymo previously explained that "[t]he function of the diode in the context of claim 1 is to allow electrical current to flow through from the voltage source (via the inductor) to the capacitor during a charge cycle, and to resist current flow from the capacitor towards the inductor during a discharge cycle." (Dkt. 825-4 at 4:25-28.) This can be seen in '936 Figures 5C and 5D, which depict the charge and discharge cycles, respectively.

The resistor in Fuji performs the same function, in the same way, to achieve the same result. Specifically, it has a [REDACTED] resistance. (Uber Précis at 3.) When the capacitor is charging—such that the entire current is flowing from the voltage source to the capacitor—the current overcomes this [REDACTED] resistance. Thus, the resistor "allow[s] electrical current to flow through from the voltage source (via the inductor) to the capacitor during a charge cycle," just like the claimed diode. By contrast, during the discharge cycle, nearly all the current is directed to the light-emitting source. Very little current will be available to leak back towards the inductor through the [REDACTED] resistance of the Fuji resistor. Thus, the Fuji resistor "resist[s] current flow from the capacitor towards the inductor during a discharge cycle," just like the claimed diode in the '936 Patent.

Uber does not address this equivalence at all. Instead, Uber's no-equivalence argument is based on its position that the diode of the '936 Patent is "reversed biased"—*i.e.*, biased towards allowing current flow in only one direction—while the Fuji resistor is not. (Uber Précis at 3 ("The resistor in Fuji's circuit applies only a [REDACTED] resistance' to the current flowing through it, regardless of the current's direction, and Waymo does not contend that the resistor can become reverse-biased to block current.")) Initially, Uber does not identify which prong of the function/way/result test this reverse bias is supposedly relevant to. But more importantly, none of the asserted claims require that the claimed diode be reverse biased. Moreover, two dependent claims that Waymo is *not* asserting—claims 4 and 12—*do* require that the diode be reverse biased. Claims 4 and 12 depend from asserted claims 1 and 9. Because claims 4 and 12 add a "reverse bias" element that is absent from claims 1 and 9, reverse bias cannot be read into claims 1 and 9. *Nazomi Commc'ns v. Arm Holdings*, 403 F.3d 1364, 1370 (Fed. Cir. 2005) ("The concept of claim differentiation 'normally means that limitations stated in dependent claims are not to be read into the independent claim from which they depend.'") Thus, the absence of reverse bias in the Fuji resistor—which is the centerpiece of Uber's no-equivalence position—is irrelevant. It cannot distinguish the Fuji resistor from the claimed diode in '936 claims 1 and 9, because the diode in those claims does not require reverse bias at all.

Uber cites Waymo's expert Dr. Wolfe for the purported proposition that the diode in the '936 Patent must be reverse biased. (Uber Précis at 2-3.) But in none of the cited passages does Dr. Wolfe ever say that any asserted claims require reverse bias. The diode in the '936 Patent *can* be

reverse biased if the voltage on the capacitor is being charged to a value above that of the voltage source, but again, that is a requirement of non-asserted dependent claims 4 and 12, not the asserted claims. A doctrine-of-equivalents analysis must focus on the claims at issue. It is improper to “rely[] on unclaimed features to find a lack of equivalents.” *AquaTex Indus., Inc. v. Techniche Sols.*, 479 F.3d 1320, 1323 (Fed. Cir. 2007). Because reverse bias is not part of the asserted claims, it is meritless for Uber to argue that the lack of reverse bias in the Fuji resistor renders the Fuji resistor patentably distinct from the “diode” of the asserted claims.

**TS 9 Is a Trade Secret.** Waymo’s TS 9 covers a highly confidential and unique aspect of Waymo’s LIDAR design relating to [REDACTED]. Uber’s precis strings together a hodgepodge of unrelated patents and testimony, but none of what Uber cites disclose Waymo’s claimed trade secret or is an admission that it is not entitled to trade secret protection. And none get even close to avoiding the disputed issues of fact when comparing these disparate disclosures to TS 9, or whether TS 9 is entitled to trade secret protection.

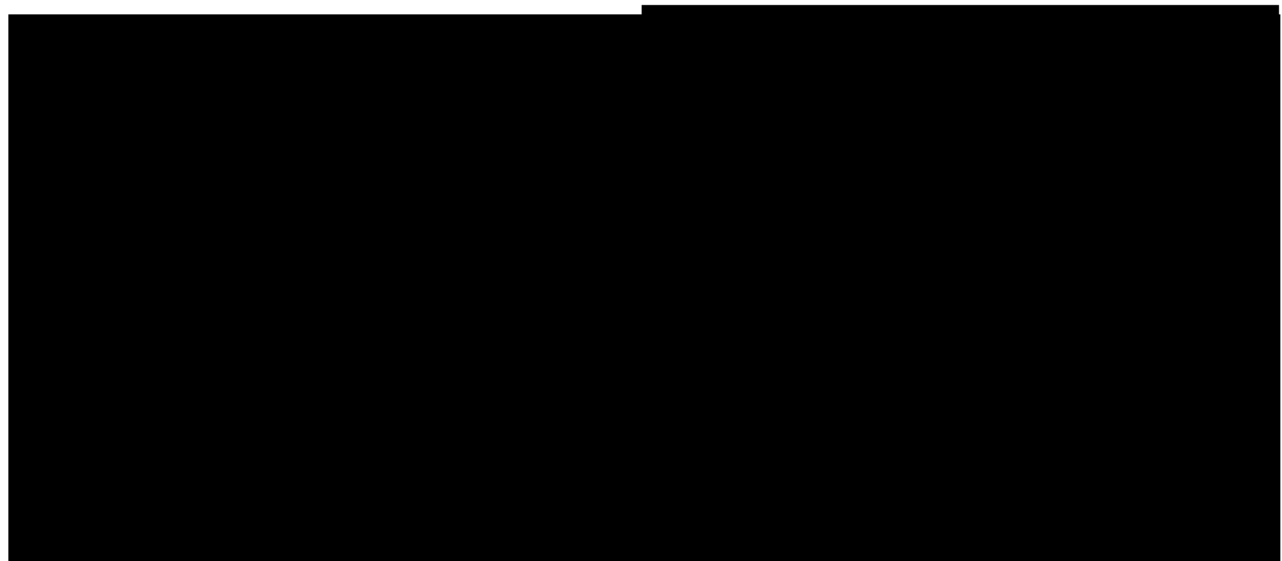
*TS 9 Background:* [REDACTED]

[REDACTED] *TS 9 Is a Trade Secret:* Uber’s precis does not even try to address the entirety of the claimed trade secret. Uber provides no disclosure of a LIDAR system with this type of [REDACTED]; no LIDAR system with a [REDACTED]. The public reference cited by Uber (U.S. Patent 5,420,722) does not even mention LIDAR. The second reference describes a “wavelength beam combining system,” not a LIDAR system, much less the claimed trade secret.

Uber also mischaracterizes the testimony of Waymo’s engineers. Far from admitting that TS 9 was known, the testimony confirms the opposite. Mr. Droz first explained the key insights that

Waymo's engineers arrived upon, which were contrary to current thinking in the LIDAR field. (Nardinelli Dec., Ex. 1 [Droz. 8/3/17 Dep.] 228:17-230:7.) Uber cites one portion of Mr. Droz's next answer in its precis, but omits his explanation immediately thereafter of why Waymo's LIDAR [REDACTED] design is unique and not known in the field. (*Id.* at 230:8-233:13.) Waymo engineer Will McCann similarly explains that Waymo's [REDACTED] is *not* simply a known principle of optics: "you know, this is a very specific -- like, it's not really the same thing here." (Dkt. 1299-7 at 218:4.) Other than the Waymo design, he was unaware of using an [REDACTED]. (*Id.* at 216:19-218:22.) At minimum, there is a genuine question of fact as to whether TS 9 was publicly known, which renders summary judgment improper. *MMCA Grp., LTD v. Hewlett-Packard Co.*, No. C-06-7067 MMC, 2010 WL 147937, at \*3 (N.D. Cal. Jan. 12, 2010) (denying summary judgment where defendant "has failed to show no triable issue exists with respect to the question of whether the alleged trade secrets were 'not [ ] of public knowledge or of a general knowledge in the trade or business.'")

*Uber Misappropriated TS 9:* Finally, Uber's motion is yet another attempt to avoid the overwhelming evidence of its misappropriation, as one can see by simply comparing the copycat design to Waymo's (colored annotations added showing overlapping elements):



Waymo's GBr LiDAR Design

WAYMO-UBER-00006314 Fuji's LiDAR Design

UBER00011612

By Uber's engineers' (who are former Waymo engineers) own admissions, these overlaps are not a coincidence. (Nardinelli Dec., Ex. 2 [8/9/17 Pennecot Dep.] 641:6-643:7 [REDACTED])

[REDACTED]; Nardinelli Dec., Ex. 3 [8/4/17 Gruver Dep.] 274:22-25 [REDACTED]

[REDACTED]) As the vendor Uber selected commented when providing a quote for manufacturing the custom [REDACTED]

(Nardinelli Dec., Ex. 4 [UBER00011613].)